Patient Safety and the Federal Research Agenda

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National Federal Patient Safety: Background

- IOM's report: To Err is Human (Nov. 1999)
- Systems-related best practices RFA (Dec. 1999)
- QuIC (Quality Interagency Coordination Task Force)
  - Doing What Counts for Patient Safety: Federal Actions to Reduce Medical Errors and Their Impact (Feb. 2000)
- Patient Safety Task Force (March 2001)

Systems Related Best Practices

- 6 grants
- Diverse focus
  - Improving Safety by Computerizing Outpatient Prescribing (Bates)
  - Reducing Missed Diagnoses of Acute Cardiac Ischemia in the ED Using the ACI-TIPI Error Reduction System (Selker)
  - Teamwork and Error in Neonatal Intensive Care (Thomas)
  - Characterizing Medical Error in Primary Care (Woolf)
  - Brief Risky High Benefit Procedures Best Practice Model (Mackenzie)
  - Developing Best Practices for Patient Safety and The California Patient Safety Consortium (Singer/formerly McClellan)

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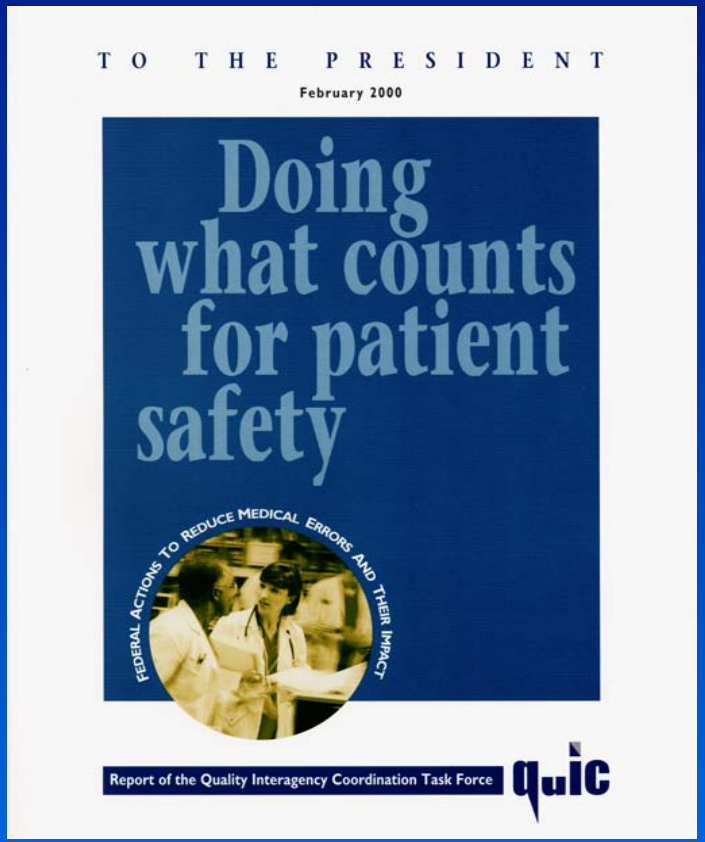
QuIC

- *Doing What Counts*... (Available at www.quic.gov)
- 100+ action items (85% completed as of 2002)



- **September 2000**
- **Joint public and private sector funder participation and support**
- **Input from over 100 stakeholders**
- **Oral testimony from 25 groups**
- **Written statements from 71**
- **Follow up meeting with clinicians (Nov. 2000)**

QuIC National Summit on Medical Errors and Patient Safety Research

- Research agenda (www.quic.gov)
  - Epidemiology of errors
  - Infrastructure to improve patient safety
  - Information systems
  - Knowing which interventions should be adopted
  - Using information
  - Transition issues
- Used in driving the $50 million 2001 AHRQ portfolio of patient safety grants

AHRQ FY 2001 Patient Safety RFAs $50 million

- ✓ 1) Health System Error Reporting, Analysis, and Safety Improvement Demonstrations
- ✓ 2) Centers of Excellence for Patient Safety Research and Practice
- ✓ 3) Developing Centers for Patient Safety Research and Practice
- ✓ 4) Clinical Informatics to Promote Patient Safety (CLIPS)
- ✓ 5) Effect of Working Conditions on Patient Safety
- ✓ 6) Patient Safety Research Dissemination and Education

Evaluating Reporting Demonstration Projects

- What information should be collected? How? How can the data be used to improve safety?
  - 16 demonstration projects awarded totaling $24.7 million to examine data collection, analysis and use
    - Voluntary reporting
    - Required reporting
    - Required reporting that includes reporting to the affected patient or family member
  - Includes projects to look at changes in information systems to improve data collection
  - Examines some state-based systems

Reporting Demonstration Projects: Preliminary Findings

- No single data source is sufficient to gain a complete understanding of medical errors contributing to actual or potential patient harm
- As reporting improves
  - Number of reported errors are expected to increase
  - Severity of errors is expected to decrease
- Great variability in whether and how errors are disclosed despite JCAHO standard requiring disclosure of all unexpected outcomes of care

Reporting Demonstration Projects: Preliminary Findings

- Human resource policies/procedures should be aligned with the emerging “just culture”
- Legal protection of reporters/reported data is critical
- Ability to identify patient safety problems would be enhanced by the availability of data guidelines and standards
- Reporting systems must be easy to use but not too simple

Reporting Demonstration Projects: Preliminary Findings

- Most common root causes of medical errors
  - Communication problems
  - Inadequate information flow
  - Human problems
  - Patient-related issues
  - Organizational transfer of knowledge
  - Staffing patterns/work flow
  - Technical failures
  - Inadequate policies/procedures

Centers of Excellence

- Purpose: support multidisciplinary research teams to build the knowledge base on patient safety
- 3 awards
  - Improving medication practices across clinical settings
  - Reducing medication errors
  - Translating safety practices from aviation

Developing and Encouraging Centers of Excellence in Patient Safety

- How can new and existing centers be created and supported to help carry out patient safety research?
  - 22 projects totaling $8 million to foster innovative approaches to improving safety at facilities and organizations in diverse locations across the country

Pilot Projects Selected

- Reporting
  - Understanding norms of error disclosure
  - Patient observation and medical errors
  - Physician, staff, and patient reported errors (primary care)
- Hospital
  - Central venous line placement and nosocomial infections
  - Cognitive task analysis of ICU care
- Nursing home
  - Reducing risk of falls/related injuries
- Transitions
  - Transitions in emergency care settings
  - Transitional medical care management
  - Reduce subsequent hospitalization following discharge

Pilot Projects Selected

- Pediatrics
  - Novel approach to pediatric safety
  - Identifying and learning from NICU errors
- Nursing
  - Assessment/monitoring of harmful drug duplication and interaction
  - Patient, family and RN perceptions of medication errors in home care
  - ID system errors and causes by community-based care management by RNs
- Other
  - Factors associated w/safe telephone medicine
  - Failure to follow-up abnormal mammograms
  - Analyzing diagnostic errors
  - Systems engineering intervention in outpatient surgery

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Using Computers and Information Technology to Improve Safety

- How can computers and information technology be applied to reduce errors and improve quality of care?
  - 11 projects totaling $5.3 million to develop and test state-of-the-art applications
    - hand-held computers with decision support systems
    - simulation tools to train clinicians and to identify and analyze errors and close calls/near misses
    - examine how to improve specific tools like eliminating errors in the use of infusion pumps

Working Conditions and Patient Safety

- What is the impact of working conditions in health care settings on patient safety?
  - 22 w/8 projects related to patient safety totaling $3 million to examine issues such as staffing, fatigue, stress, and sleep deprivation and their relationship to medical errors
    - assessing the relationship between daily changes in the working conditions in hospital, including nurse staffing, ratios, workload, and skill mix
  - study issues that have been examined extensively in aviation, manufacturing, and other industries, but not in health care

Effect of Health Care Working Conditions on Patient Safety*

- Increased staffing of licensed and unlicensed nurses in acute and long-term care facilities likely leads to improved patient outcomes
- Preventable complications are fewer when complex technical procedures are completed by high-volume clinicians
- Systems to reduce interruptions/distractions likely reduce the number of medical errors
- Systems to improve information exchange and hand-offs of patients decrease medication errors and hospital readmissions

*The effect of health care working conditions on patient safety. Evidence Report/Technology Assessment Number 74,(2003.)

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Disseminating Research Results

- What are the best ways to educate clinicians and others about the results of patient safety research?
  - 6 projects totaling $2.4 million to develop, demonstrate, and evaluate new approaches to improving provider education
    - applying new knowledge on patient safety to curricula development, continuing education, simulation models, and other training strategies

Patient Safety Task Force

- A Cooperative activity of the DHHS
  - AHRQ,CDC, CMS, FDA
- Goal: improving existing federal reporting systems by “front end” and “back end” integration and enhancement
- Large project: National Patient Safety Network

National Patient Safety Network (NPSN) Concepts

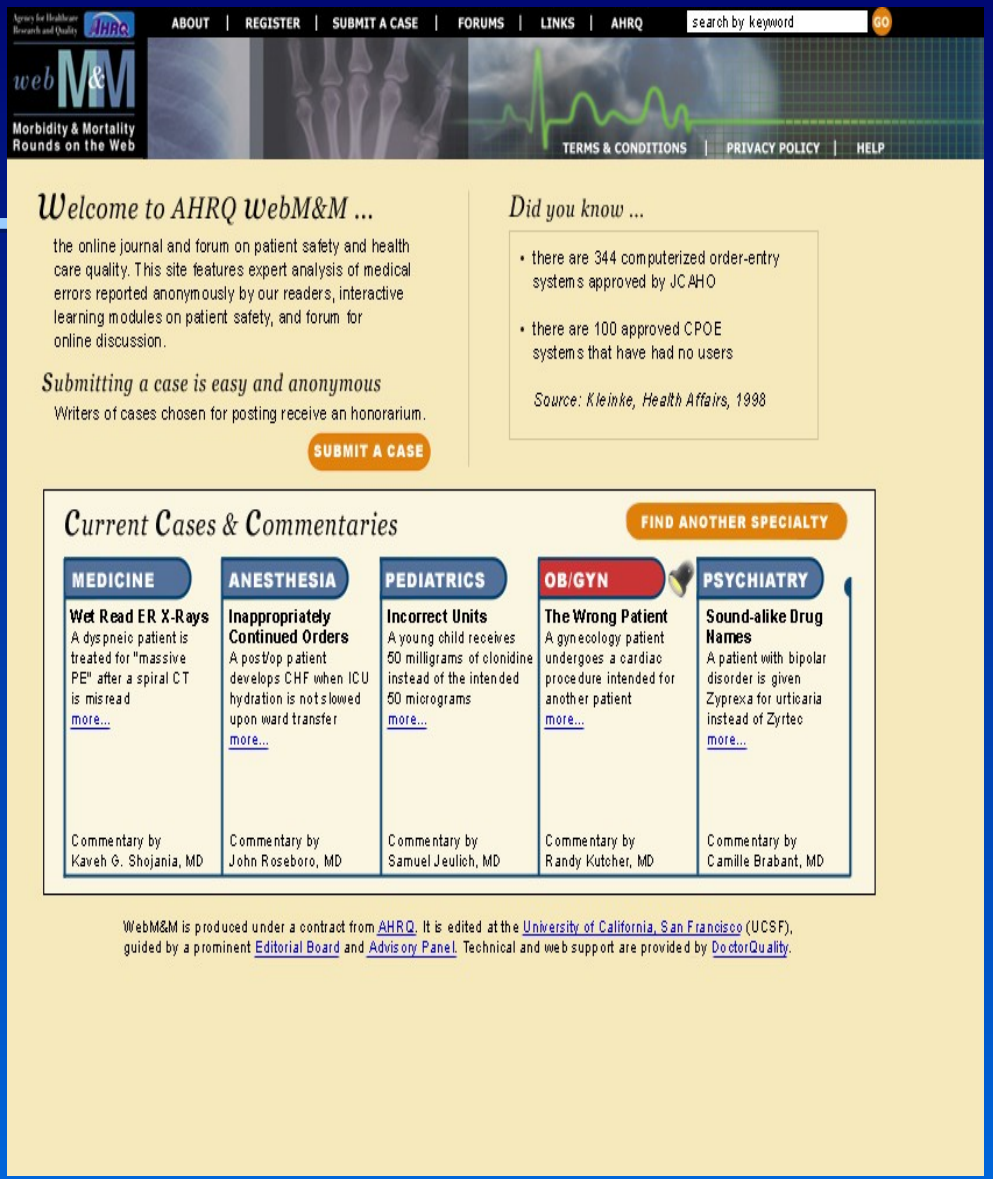
- Concepts
  - Knowledge system for patient safety is essential
  - Local user relevance is essential
  - All participants should benefit
  - Integrated system is essential
    - Includes state / federal required reports
    - Standardized methods / definitions
    - Compatible with existing systems
  - Modular system is optimal
    - Evolution
    - Expansion

Making Health Care Safer: A Critical Analysis of Patient Safety Practices

- UCSF-Stanford EPC commissioned by AHRQ to review evidence on safety practices (released July 20, 2001)
  - Engaged 39 authors at 11 universities
  - Reviewed 3,000+ pieces of literature (from medicine, aviation, human factors, other fields)
- www.ahrq.gov/clinic/ptsafety/
- Translating report to practice through the NQF (ongoing)
  - Develop a compendium of evidence-based safety practices useful in preventing/reducing health care errors

AHRQ's Web M&M

- www.webmm.ahrq.gov
- Content
  - Analysis of cases submitted anonymously by readers
  - Interactive learning modules
  - Forum for on-line discussion
  - CME available



International Activities

- US/UK initiative
  - AHRQ and UK(National Health Service)
  - Methodology meetings
    - Iceland meeting (Sep. 8-10, 2002) -- Methodology issues related to “error reporting”
    - Rockville (Sep. 23-24, 2003) – Safety by Design
  - Peer review of grant applications
  - Participation in annual patient safety conferences

FY 2003 AHRQ Patient Safety Investments

- Patient Safety Improvement Corps
  - AHRQ/VA partnership
  - Primary goal: improve patient safety by providing essential knowledge and skills
  - When: 3 annual programs (3 weeks/program)
  - Where: initial program in Washington DC area
  - Who: States and their selected hospital partners
  - Cost: Free of charge to participating teams

FY 2003 AHRQ Patient Safety Investments

- Challenge grants
  - $3,000,000
  - Design and evaluation
    - Not implementation
  - Complement work of CDC, CMS, FDA
    - Reduce medication errors
    - Reduce hospital acquired infections
    - Eliminate preventable procedure and device-related complications

FY 2003 AHRQ Patient Safety Activities

- Third annual patient safety conference
  - Build the bridge between researchers and users of research findings to improve patient safety
  - Showcase research products and findings that can be put into practice to influence and improve the safety of health care
  - March 7-9, 2004 – Arlington, VA
  - Attendees
    - AHRQ and HRSA patient safety grantees
    - Invited users
  - Includes domestic and international representation

IOM Chasm Report: Information Technology

- "There must be a renewed national commitment to building an information infrastructure to support health care delivery, consumer health, quality measurement and improvement, public accountability, clinical and health services research, and clinical education."
- This commitment should lead to the elimination of most handwritten clinical data by 2010.

2004 Patient Safety Investments

- Health Information Technology (HIT)
- $50 million initiative to demonstrate hospital-based information technology solutions
- Foci
  - Assessing value
  - Planning
  - Implementation
- Emphasis
  - small community and rural hospitals

Additional AHRQ Resources on Medical Errors and Patient Safety

- http://www.ahrq.gov/qual/errorsix.htm
- **Documents/Fact Sheets**
  - Five Steps to Safer Health Care
  - 20 Tips to Help Prevent Medical Errors: Patient Fact Sheet
  - 20 Tips to Help Prevent Medical Errors in Children
  - Medical Errors: The Scope of the Problem
    Medication Errors Found To Be Common in Pediatric Inpatients
  - Ways You Can Help Your Family Prevent Medical Errors!
  - Reducing Medical Errors in Health Care
- **Audio tapes:** Building the Business Case for Patient Safety
- **Web-assisted teleconference proceedings:** Can You Minimize Health Care Costs by Improving Patient Safety?
- **Conference Synthesis:** Agenda for Research in Ambulatory Patient Safety